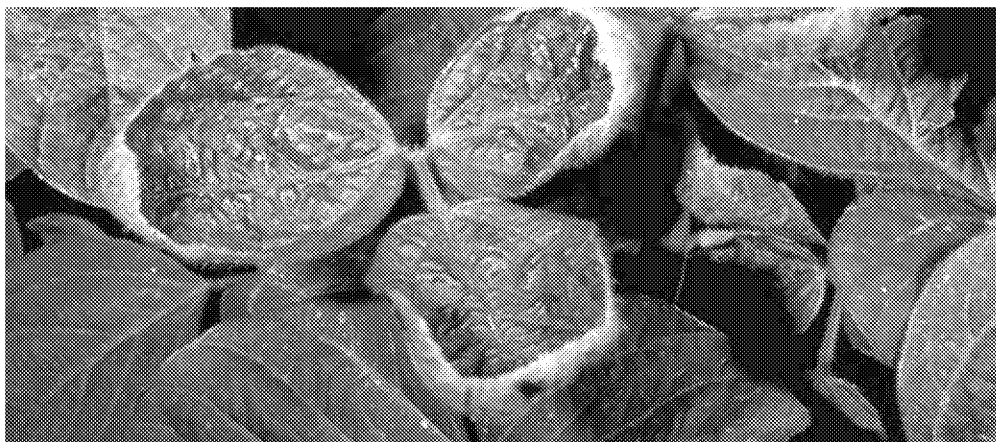


Association of American Pesticide Control Officials



Dicamba

Thank you to the University of Arkansas for the dicamba injury on soybeans photograph.

Please contact the Pesticide State Lead Agency (<https://aapco.org/2015/07/28/resources-2/>) to report Dicamba injury or issues.

Please send dicamba training/resource/research information to Amy Sullivan, AAPCO Executive Secretary, aapco.sfireg@gmail.com

2017 materials from this Dicamba page have been moved **here** (<https://aapco.org/dicamba-archives/>).

Dicamba-tolerant seeds were registered for use during the 2016 growing season. Due to the lack of the accompanying dicamba formulation which was required to be used with the seeds, many growers used older formulations and the resulting drift and volatilization issues caused widespread crop damage and enforcement issues.

EPA registered the new dicamba formulation in the fall of 2016. During the 2017 growing season we continued to see widespread crop damage and enforcement issues. EPA and the registrants have negotiated new labels for the 2018 season.

On November 19, 2018, EPA posted Dicamba Pesticide Use Limitation Areas. The county list may be found at: <https://www.regulations.gov/document?D=EPA-HQ-OPP-2016-0187-0974>
(<https://www.regulations.gov/document?D=EPA-HQ-OPP-2016-0187-0974>)

On October 31, 2018 EPA released **changes to the Dicamba registration** (<https://www.epa.gov/newsreleases/epa-announces-changes-dicamba-registration>).

On July 27, 2017 EPA issued a **Compliance Advisory** (<https://aapco.files.wordpress.com/2017/07/2017-compliance-advisory-for-dicamba.pdf>) for Dicamba.

April 2018 EPA's Dicamba **FAQs Webpage** (<https://www.epa.gov/ingredients-used-pesticide-products/frequently-asked-questions-required-dicamba-training-over-top>)

*Please scroll down to find information on AAPCO State Survey Results, Registrant Training, State Updates, Laboratory Considerations, Research & Resources, and Articles and Letters.

AAPCO's State Survey Results

Beginning May 15, 2018, AAPCO will send out a survey to the states listed on the dicamba ott labels every other week. The survey is intended to gather information related to dicamba use and caseloads. This information is shared with EPA. We are posting the first page of the survey results to the website. The format is an excel workbook, and it will download to your computer.

May 21, 2018 Results (<https://aapco.files.wordpress.com/2018/05/may-21-2018-dicamba-survey-results-for-website.xlsx>)

June 2, 2018 Results (<https://aapco.files.wordpress.com/2018/07/mo-mod-week-2.xlsx>)

June 18, 2018 Results (<https://aapco.files.wordpress.com/2018/07/mo-mod-week-3.xlsx>)

July 9, 2018 Results (<https://aapco.files.wordpress.com/2018/07/mo-mod-week-4.xlsx>)

July 16, 2018 Results (<https://aapco.files.wordpress.com/2018/07/website-week-5-dicamba-survey-results.xlsx>)

July 23, 2018 Results (<https://aapco.files.wordpress.com/2018/07/website-week-6.xlsx>)

July 30, 2018 Results (<https://aapco.files.wordpress.com/2018/07/web-week-7-dicamba-survey.xlsx>)

August 6, 2018 Results (<https://aapco.files.wordpress.com/2018/08/web-week-8-dicamba-survey.xlsx>)

August 13, 2018 Results (<https://aapco.files.wordpress.com/2018/08/web-week-9-dicamba.xlsx>)

August 20, 2018 Results (<https://aapco.files.wordpress.com/2018/08/week-10-web-results.xlsx>)

August 30, 2018 Results (<https://aapco.files.wordpress.com/2018/08/web-results-for-week-11-dicamba-survey.xlsx>)

September 6, 2018 Results (<https://aapco.files.wordpress.com/2018/09/web-week-12-dicamba-info-share.xlsx>)

Comments to EPA from States

AAPCO, August 29, 2018 (<https://aapco.files.wordpress.com/2018/08/aapco-dicamba-letter-august-29-2018.pdf>)

Office of the Indiana State Chemist, August 29, 2018 (<https://aapco.files.wordpress.com/2018/08/oisc-dicamba-comments-to-epa-8-29-18.pdf>)

Registrant Training

For the 2018 season, the dicamba for soybean and cotton labels have been revised. Part of the revision is the requirement that applicators take dicamba or auxin specific training. If the state does not provide the training, the registrants are required to do so.

BASF's 2018 dicamba training materials (<https://www.engeniastewardship.com/#/>)

DuPont's dicamba training: FeXapan Application Requirements and Stewardship-2018 (https://aapco.files.wordpress.com/2018/01/2018_fexapan-external-stewardship-training-final_build_v2b_122817.pdf)

Monsanto's website link (<http://www.roundupreadyxtend.com/stewardship/education/Pages/default.aspx>) which includes their online training calendar and online training module.

BASF's Inversion Video (https://aapco.files.wordpress.com/2018/04/basf-temperature-inversion_full-vers_supers.mp4)

State Updates

2018 Summary of State Rules and Section 24(c) Labeling for Dicamba Use on Soybeans

Presented to The Pesticide Stewardship Alliance Conference, February 8, 2018, Carol Black, Washington State University

States with no additional requirement to what is on the label

- Illinois
- Iowa
- Kansas
- Kentucky
- Michigan
- Nebraska

- **Ohio**
- **Pennsylvania**
- **South Carolina**
- **Virginia**

Had existing rules impacting auxin herbicides (2,4-D, dicamba)

- Several states have existing auxin rules that remain in place that impact dicamba and 2,4-D.

Registrant Training is Currently Not Approved

- **Arkansas** Cooperative Extension – online
- **Alabama** Cooperative Extension
- **Georgia** – Univ. Georgia & GDA – Use Pesticides Wisely
- **Indiana** – OISC & Purdue University
- **Mississippi** Cooperative Extension
- **Missouri** Cooperative Extension
- **North Carolina** Cooperative Extension

Cut Off Dates

- **Arkansas** – April 16
- **Louisiana** – April 1 – September 15 for Commercial Applicators – can apply for a waiver
- **Minnesota** – June 20
- **Missouri**
 - **June 1** in the 12 southeast counties
 - **July 15** all other counties
- **North Dakota** – June 30 or after the first bloom (whichever comes first)
- **Tennessee** – July 15 requires a hooded sprayer

Cut Off Temperatures

- 85°F at time or if National Weather Service (NWS) forecast 85°F for the day
- **Minnesota**
- **North Dakota**

Application Time Restrictions

- **Missouri** – Cannot apply – before 7:30 am or after 5:30 pm
- **North Dakota** – Can apply – One hour after sunrise to one hour before sunset
- **Tennessee** – Can apply between 9:00 am and 4:00 pm

Other

- **Louisiana**
 - LDAF-approved training required for “seller, purchasers, and applicator”
- **Minnesota**
 - No “under the supervision” applications for any RUP – existing rule
- **Missouri**
 - Online dicamba “Notice of Application” daily prior to each application
- **North Dakota**
 - Sprayer speed limit of 12 MPH
 - No 80-degree or narrower spray nozzles
- **North Carolina**
 - Do not apply when wind is blowing toward adjacent sensitive crops: Including: tobacco, grapes, watermelon, sweet potato, peanut, pepper, beans, NDT cotton, NDT soybeans – was in 2017
- **South Dakota**

- Engenia – buffers based on application rate/product
- Minimum 10 GPA delivery
- All dicamba formulations are state RUP

Alabama

Alabama is requiring training for all dicamba and 2,4-D uses on dicamba and 2,4-D tolerant crops, through 24(c) registrations, as well as a wind speed restriction up to 10 mph. **See their guide here** (<https://kdoodlebug.wixsite.com/mysite>).

Alabama's Dicamba Training page (<http://agi.alabama.gov/s/new-training-requirements-for-spraying-specific-herbicides>)

Arkansas

Arkansas' Dicamba Updates webpage (<http://www.aad.arkansas.gov/arkansas-dicamba-information-updates>)

Florida

Florida has an **Organo-Auxin rule in place** (<http://edis.ifas.ufl.edu/wg051>), which restricts many uses of auxin herbicides.

Georgia

Georgia's Auxin Training webpage (<http://agr.georgia.gov/24c.aspx>)

Illinois

Illinois' Dicamba Training page (<https://www2.illinois.gov/sites/agr/Pesticides/Pages/Dicamba.aspx>)

Indiana

Indiana has an extensive **Dicamba resources page** (<http://www.oisc.purdue.edu/pesticide/dicamba.html>) that includes details about the state RUP status of the products, as well as tank mix cleaning, reporting damage and other topics.

Indiana's Office of the State Chemist has developed **training for compliance with the 2018 label**. (<http://www.oisc.purdue.edu/pesticide/dicamba.html>)

Minnesota

Minnesota has created a dicamba page and a 2017 online survey is being compiled: **www.mda.state.mn.us/dicamba** (<http://www.mda.state.mn.us/dicamba>).

Mississippi

Mississippi's 2018 How to Comply (http://www.mdac.ms.gov/press_releases/2018/2018_03_08a.pdf)

Mississippi's Dicamba Training page (<http://extension.msstate.edu/news/feature-story/2018/msu-extension-offer-dicamba-training-courses>)

Missouri

See their Dicamba Facts webpage. (<http://agriculture.mo.gov/plants/pesticides/dicamba-facts.php>)

North Carolina

North Carolina's Auxin Resources webpage (<http://www.ncagr.gov/SPCAP/pesticides/auxin.htm>)

North Dakota

North Dakota state specific protocols are online (<https://www.nd.gov/ndda/news/north-dakota-specific-protocols-announced-dicamba>).

South Dakota

South Dakota's Dicamba webpage (<https://sdda.sd.gov/ag-services/dicamba/default.aspx>)

article on SD and dicamba (<https://news.sd.gov/newsitem.aspx?id=23206>)

Tennessee

Tennessee's Dicamba Resources (http://www.mdac.ms.gov/press_releases/2018/2018_03_08a.pdf)

Tennessee's Dicamba Training page (<https://ag.tennessee.edu/Pages/Dicamba-Training-Information.aspx>)

AAPCO's State Dicamba Survey, November 2017: All Survey responses (https://aapco.files.wordpress.com/2017/11/aapco-dicamba-survey_responses_all_11_20_2017.pdf) and All Survey data. (https://aapco.files.wordpress.com/2017/11/aapco-dicamba-survey_data_all_11_20_20171.pdf)

Updated maps of enforcement (<https://aapco.files.wordpress.com/2017/10/dicamba-maps.pdf>) numbers as of October 4, 2017. Thank you to VDACS for the maps!

Laboratory Considerations

USEPA is offering Laboratory Assistance to States for Dicamba Analysis

This guidance document (https://aapco.files.wordpress.com/2017/09/procedures_analytical-support_dicamba-090717.pdf) is to be used by states that may be in need of assistance with dicamba laboratory analysis. Be aware that the guidance requires the request for assistance come through the EPA regional office.

This addendum to the guidance document (<https://aapco.files.wordpress.com/2017/09/addendum-to-the-guidance-for-requesting-analytical-suport-on-dicamba-091517.pdf>) clarifies which sample seals, and other forms, should be used on the submitted samples.

Provided by EPA Headquarters:

"We have been told that the EPA lab is telling regional labs that to recover dicamba in resistant crops like cotton and soybeans you need to test down to the 1 ppb level. Can you confirm this information?"

Note, that because dicamba breaks down quickly and completely to DCSA, it is recommended that for dicamba-resistant crops, testing for DCSA be performed in addition to dicamba.

Based on field and laboratory studies for dicamba resistant crops, dicamba breaks down quickly (within hours) into metabolite DCSA. Therefore, residue of dicamba on those crops will be minimal (estimated to be in low ppb level based on a 1 lb ai/A application rate) during the first day or so after application, and non-existing afterwards. So if you are looking for dicamba in dicamba resistant crops, sampling of those crops must be done no later than a day or 2 after application, and yes, you need to go down to at least to 5 ppb level or below for LOQ (2 ppb or below for LOD). Otherwise, look for DCSA. This metabolite is more persistent and can still be detected in samples that were collected a month or so after application.

As for “Is there any difference when testing if it is a low-volatility formulation or the old suspected of the crop damage”, the answer is “no.”

If you need additional technical information, please contact Thuy or Yaorong.

Thuy Nguyen nguyen.thuy@epa.gov (<mailto:nguyen.thuy@epa.gov>) 410-305-2905 or Yaorong Qian qian.yaorong@epa.gov (<mailto:qian.yaorong@epa.gov>) 410-305-2626

Dicamba and Degradates Residue Analysis (<https://aapco.org/april-2017-sfireg-joint-working-committee-meeting-presentations/>) – Presentation given to the SFIREG Joint Working Committees in April 2017 by Thuy Nguyen

South Dakota Ag Labs can provide Dicamba and DCSA testing to 1ppb LOQ. Their turn around time is 7-10 days. The cost is \$162. and can do a screen of the PGRs for \$212 (13 analytes). They are working on the 5-OH Dicamba method and awaiting receipt of the standard to perform that method as well.

For more information contact:

Regina L. Wixon, Ph.D.
Director
South Dakota Agricultural Laboratories
1006 32nd Ave. Suite 105
Brookings, SD 57006
Ph 605-692-7325
Fax 605-692-7326
www.sdaglabs.com (<http://www.sdaglabs.com>)

Research and Resources

This is not exhaustive, and many states are doing research related to what is occurring with dicamba systems. Some materials we have been provided are below.

AAPCO’s Annual Spring Meeting Dicamba Session PowerPoints:

Dicamba – Baris (<https://aapco.files.wordpress.com/2018/03/baris-dicamba-usepa-aapco-march-2018-final.pptx>)

Dicamba – Witten- Monsanto requested that we not post their presentation online as the numbers presented are dynamic. Please contact registration.state@monsanto.com (<mailto:registration.state@monsanto.com>) for information on the presentation.

Dicamba – Westberg (https://aapco.files.wordpress.com/2018/03/aapco-engenia-update-and-stewardship_march2018.pptx)

Dicamba – BASF Inversion Video (https://aapco.files.wordpress.com/2018/04/basf-temperature-inversion_full-vers_supers.mp4)

Dicamba – Ikley (https://aapco.files.wordpress.com/2018/03/ikley_aapco.pdf)

Dicamba – Scott (<https://aapco.files.wordpress.com/2018/03/2018-aapco-mtg-dicamba-dave-scott.pdf>)

North Carolina's **Auxin Record Keeping** (<https://aapco.files.wordpress.com/2018/01/2018-auxin-record-keeping-manual.pdf>) Manual

PowerPoint presentation (<https://aapco.files.wordpress.com/2017/08/dicamba-epa-call.pdf>) for EPA summarizing several research efforts from State Extension programs, July 28, 2017.

Purdue: 2013 Weed Science paper (https://www.researchgate.net/publication/275700911_Response_of_Glyphosate-Tolerant_Soybean_Yield_Components_to_Dicamba_Exposure) on soybean yield and dicamba exposure, and August 2017 newsletter

(<https://ag.purdue.edu/btny/weedscience/Documents/Response%20of%20Roundup%20Ready%20Soybean%20Yield%20to%20Dicamba%20Exposure.pdf>) on the same topic.

University of Missouri:

- August 14, 2017 Update on Dicamba-related Injury Investigations and Estimates of Injured Soybean Acreage (<https://ipm.missouri.edu/IPCM/2017/8/Update-on-Dicamba-related-Injury-Investigations-and-Estimates-of-Injured-Soybean-Acreage/>)
- Extension Slideshows related to Dicamba (<http://weedscience.missouri.edu/extension/slideshows.cfm>)
- Ag Industry, Do we have a problem yet? (https://ipm.missouri.edu/IPCM/2017/7/Ag_Industry_Do_we_have_a_problem_yet/)

Updated Dicamba complaint map (https://aapco.files.wordpress.com/2017/09/trossbach_dicamba-related-investigations_09_18_2017.pdf), September 15, 2017

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Blog at WordPress.com.